

CLAIMS

1. A collimation assembly for a multi-beamed scanner including a printhead housing and having a scanning element for scanning a light beam and a pre-scan assembly for transmitting a received light beam to said scanning element, said collimation assembly comprising:
 - a collimation housing mounted to said printhead housing;
 - at least two adjustment brackets supported on said collimation housing;
 - a light source supported by each of said adjustment brackets, each said light source defining a respective light beam axis;
 - at least two collimation lenses, each collimation lens supported in said collimation housing and intersected by one of said light beam axes; and
 - each of said adjustment brackets being movable relative to said collimation housing to locate each of said light beam axes at a predetermined position relative to a respective collimation lens.
2. The collimation assembly of claim 1 wherein each said adjustment bracket is movable relative to said collimation housing along two axes of movement transverse to said light beam axes.
3. The collimation assembly of claim 2 including holes defined through each said adjustment bracket and fasteners extending through said holes to attach said adjustment brackets to said collimation housing, said holes comprising oversized holes for accommodating adjustment of said adjustment brackets relative to said collimation housing.
4. The collimation assembly of claim 1 including a circuit board mounted to said printhead housing and flexible circuit leads extending from said circuit board, said light sources including lead wires connected to said flexible circuit leads for powering said light sources.
5. The collimation assembly of claim 1 wherein each said light source is supported for movement in a process direction parallel to said light beam axes to adjust the distance between said light source and said collimation lens.

6. The collimation assembly of claim 5 wherein each said adjustment bracket includes a generally tubular mount member receiving said light source in sliding relation for adjustment of said distance between said light source and said collimation lens.
7. The collimation assembly of claim 6 including a plurality of ribs extending within said mount members for engaging said light source and providing a clearance space between an exterior of said light source and an inner wall of said mount member.
8. The collimation assembly of claim 6 wherein each said mount member includes a slot portion extending the length of said mount member, said slot portions of said mount members being located in facing relationship to each other.
9. The collimation assembly of claim 8 wherein said mount members each define an outer diameter and the distance between said light axes is less than said outer diameter of said mount members.
10. A collimation assembly for a multi-beamed scanner including a printhead housing and having a scanning element for scanning a light beam and a pre-scan assembly for transmitting a received light beam to said scanning element, said collimation assembly comprising:
 - a collimation housing mounted to said printhead housing;
 - at least two adjustment brackets supported on said collimation housing, each said adjustment bracket including a mount member;
 - a light source supported within each said mount member, each said light source defining a respective light beam axis, and each said light source being adjustable relative to a respective mount member in a direction parallel to said light beam axes;
 - at least two collimation lenses, each said collimation lens supported in said collimation housing and intersected by one of said light beam axes; and
 - each of said adjustment brackets being movable relative to said collimation housing to locate each of said light beam axes at a predetermined position relative to a respective

collimation lens.

11. The collimation assembly of claim 10 including a circuit board mounted to said printhead housing and flexible circuit leads extending from said circuit board, said light sources including lead wires connected to said flexible circuit leads for powering said light sources.

12. The collimation assembly of claim 10 wherein said mount members each define an outer diameter and the distance between said light axes is less said outer diameter of said mount members.

13. The collimation assembly of claim 10 wherein each said adjustment bracket includes mounting holes and a fastener through each of said mounting holes for mounting said adjustment brackets to said collimation housing, said mounting holes comprising oversized holes for accommodating adjustment of said adjustment brackets along two axes of movement transverse to said light beam axes.

14. The collimation assembly of claim 13 wherein said mount members each define an outer diameter and the distance between said light axes is less than said outer diameter of said mount members.

15. The collimation assembly of claim 14 wherein each said mount member includes a slot portion extending the length of said mount member, said slot portions of said mount members being located in facing relationship to each other.

16. The collimation assembly of claim 10 wherein said adjustment brackets are located adjacent to each other in a cross-scan direction.

17. In a multi-beamed scanner including a printhead housing and a scanning element for scanning a light beam and a pre-scan assembly for transmitting a received light beam to said scanning element, a collimation assembly comprising:

a collimation housing mounted to said printhead housing;
at least two adjustment brackets supported on said collimation housing and located adjacent to each other in a cross-scan direction, each said adjustment bracket including a mount member;

a light source supported within each said mount member, each said light source defining a respective light beam axis;

at least two collimation lenses, each said collimation lens supported in said collimation housing and intersected by one of said light beam axes; and

each of said adjustment brackets being movable relative to said collimation housing in a scan direction and in the cross-scan direction to locate each of said light beam axes at predetermined positions relative to a respective collimation lens.

18. The apparatus of claim 17 including a circuit board mounted to said printhead housing and flexible circuit leads extending from said circuit board, said light sources including lead wires connected to said flexible circuit leads for powering said light sources.

19. The apparatus of claim 17 wherein each said light source is adjustable relative to a respective mount member in a direction parallel to said light beam axes.

20. The apparatus of claim 17 wherein said mount members each define an outer diameter and the distance between said light axes is less than said outer diameter of said mount members.